Proactive Data Usage...

LEADING, Not Lagging

BY ROBERT D. SOMMERS

At Ohio's Butler Tech, student success is our business. Student success, as measured by student results, is how we evaluate our programs and services. But we don't focus on these evaluative data sets on a daily basis; we focus on a series of quality measures that are highly correlated with student success. These measures, called leading measures or process performance measures, are collected and analyzed on a regular basis at all levels of the organization. They serve as constant feedback on how well we are succeeding with students. These non-evaluative measures guide our daily work and help keep us on track for the end-of-program or end-of-high-school evaluation measures that we value. They inform our process management and assure work quality.

Getting Started

We created our leading measures through a process depicted in figure A. Our work was facilitated by Robert Sheets at the University of Illinois at Urbana-Champaign.

1. We clarified our definition of student success, which varies based on program purpose. Our alternative schools have a purpose different from that of our career development program, and these programs are different from our family and consumer science, online, customized training, and workforce programs. Defining what student success means is a critical first step in the process of making improvements. For Perkins-supported career and technical programs the definition was successful transition to work and higher education.
2. We developed a set of quantitative performance measures to determine the extent to which our students were being successful within each program. For Perkins-supported programs we used the performance measures outlined in the federal Perkins legislation.
3. With the performance measures clearly defined, we determined what influenced student success. These influencers were separated into two sets; those we could control and those we could not.

The influencers we couldn't control such as family circumstances, poverty and prior academic achievement were set aside. Peter M. Senge notes a learning disability titled "The enemy is out there" in his book *The Fifth Discipline*. He describes how blaming something or someone outside of our control for our current situation lets us avoid learning and growth. It relieves us of responsibility for our circumstances. We were determined to avoid this learning disability. Not blaming student performance on influencers we couldn't control meant we had to focus on those influencers within our control. We had to take responsibility for student success!

4. The influencers we controlled were grouped and a series of major processes were identified. These major processes included:
   a. Governance
   b. Curriculum design and development
   c. Education delivery
   d. Administrative services
   e. Buildings and grounds
   f. Enrollment, retention and transition
   g. Finance and accounting
   h. Human resources management
   i. Information management
   j. Leadership
   k. Marketing and public relations
   l. Security and safety
   m. Student support services
   n. Technology
5. A set of key requirements were established for each of the major processes. These key requirements (see sidebar example Educational Delivery (figure B)) described the conditions that needed to exist to properly control the influencers that would lead to student success.
6. The key requirements drove the creation of a series of procedures we named administrative guidelines. These were daily approaches to our major processes. These administrative guidelines were assigned an owner and a cross-functional team.
7. A process performance measure was created for each administrative guideline. These leading measures were selected to provide feedback on the extent to which the procedures we created were being effectively implemented. A select group of these leading measures include those listed in figure C. These measures are highly correlated with student success—the ultimate evaluation of our work. Over time they may change as we refine the cause and effect relationship between these leading measures and student performance.

This process of creating leading measures is critical to the long-term acceptance and success of any monitoring system. Although it may be easy to take the work we did at Butler Tech and simply implement it in another school district, it will ultimately fail. Faculty and staff have to wrestle with the difficult discussions surrounding student success, influenc-

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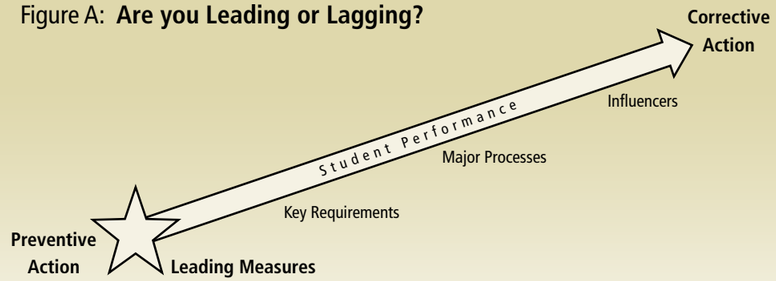
Figure A: **Are you Leading or Lagging?**



ers, major processes, key requirements, and leading measures before they can be ready to use these tools to create change. Although some of the work may be the same, each organization will have its own unique response to these important areas.

Putting the Measures to Work

The leading measures are only effective if they are monitored and analyzed. This is a daunting challenge when day-to-day activities demand so much attention in most districts. To assure monitoring and analysis, the administrative guideline owners and their teams are charged with the task of assuring that leading measures are collected, analyzed and reported to senior leadership. Senior leadership reinforces the analysis of the measures. The combination of a series of cross-functional teams monitoring and analyzing results and the regular organizational structure supporting deep analysis dramatically improves the quality of analysis and attention.

An example of a leading measure is student engagement in standards-aligned curriculum work. The research is very clear: engage students in active learning that is aligned to academic and industry standards and they will succeed in post-secondary pursuits. We monitor student engagement using the walk-through process outlined in the book *The Three Minute Classroom Walk-Through* (Downey, Steffy, English, Frase, Poston, 2004). Administrators monitor student engagement, curriculum alignment, and other critical factors on a biweekly basis in every classroom in the district. This information is provided as professional, non-evaluative feedback to faculty so they can adjust instruction to assure full student engagement. It is also collected at the building and the district level. It drives decisions related to classroom practice, technology usage and support, extra help and intervention services, and professional development. Administrator time to monitor student engagement was made possible by the elimination of faculty evaluations for faculty who produce strong student performance.

The student engagement measure is assigned to the Curriculum Delivery Supervision administrative guideline. This guideline's team is able to assess the extent to which engagement is occurring by monitoring reports produced by the Butler Tech data warehouse. Division, building and faculty-level data are available to everyone, in addition to organizational-level analysis. The faculty receives this information on a biweekly basis. They, of course, can also monitor student engagement directly on a daily basis.

Continuous Improvement… a Challenge in New Thinking

The leading measures are only useful if they affect daily work. Core to this change are the administrative guideline teams and affected faculty and staff. The guideline teams analyze the leading measures to learn what works and what doesn't. Butler Tech employees at all levels engage in best practice research, professional development, and experimentation. The guideline teams listen to the feedback provided from these employees, then combine their learning and listening into recommendations for upgrading the procedures outlined in the administrative guidelines. This continuous improvement is critical to our success and our sustainability.

One of our greatest challenges is shifting our thinking from the evaluation to feedback. It is quite painful the first few times you look at leading measures that are far from perfect. The tendency is to want to only report what we do well. But continuous improvement requires you to seek out failure and to be excited to find it. Finding failure points, and going about correcting the procedures that produce the failure, is hard work. Accepting our shortcomings is difficult. The extent to which we can celebrate bad news and find it valuable is directly related to the extent to which continuous improvement can occur.

Critical to the open, honest analysis process is the prohibition of this information being used in faculty or staff evaluations. All leading measures are non-evaluative in nature. This allows everyone to openly discuss the result, seek assistance freely, and take risks with creating new ways to improve results. One of our core beliefs is that anything we do today is inherently flawed and must be replaced

Figure B: **Education Delivery**

Key requirements for effective education delivery:

1. Education is delivered as planned with faculty having access to a course of study and instructional guides appropriate to their assignment.
2. Faculty will have the ability to use the appropriate methodology and differentiated instruction to maximize student engagement.
3. Efficient delivery of courses of study produces student performance.
4. Students receive high-quality instruction consistent with the Butler Tech Learning Experience criteria, including:
   a. Students are engaged in active learning.
   b. Students are given extra help when needed.
   c. Students are given regular ongoing feedback on performance against content standards.
   d. Students are prepared to take external assessment (*i.e.*, industry credentials, ACT, Ohio graduation exam).
   e. Students are treated with respect.
   f. Students find learning enjoyable and challenging.
   g. Students are given confidence that they can succeed and believe effort will produce results.
   h. Students have the necessary time to learn what is assessed.
   i. Students know what is expected and what will be assessed.
   j. Students recognize the importance of career and educational plans and career passports.
   k. Students recognize the relevance of student organization membership and activities to their career and educational goals.
   l. Students recognize the relevance of what they are learning to their career and educational goal.
   m. Students take personal responsibility for learning.
   n. Student achievement is recognized and rewarded.
   o. Students have at least one staff or faculty member who takes a holistic interest in them.
   p. Students have access to equipment and supplies necessary to prepare them for success as defined by the curriculum.

Figure C: **Leading Measures**

1. Alignment of board actions to board policy.
2. Policy quality.
3. Quality of curriculum as determined by PDK criteria.
4. Student engagement in instruction aligned to content in an approved course of study.
5. Number of building safety code violations.
6. Percent of program enrollment capacity achieved.
7. Budget within board budget parameters.
8. Percentage of positions filled with qualified personnel as determined through an annual audit.
9. Percentage of required data in official data systems.
10. Students with documented personal and social barriers receiving necessary support services.

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with a better approach. Anyone who looks back on their work with satisfaction is either a fool or someone who hasn't learned anything. Ellen Glasgow once said, "No idea is so antiquated that it was not once modern. No idea is so modern that it will not someday be antiquated." By focusing on improving leading measures instead of pushing the latest reform initiative, we are able to deeply imbed continuous improvement practices.

Our Results

Butler Tech has been able to improve its student performance results from near the worst in Ohio to among the best in six years. This dramatic improvement in student success occurred at the same time the district doubled its full-time equivalent student enrollment from 1,615 to nearly 3,400. The district continues to be one of the lowest cost (per pupil) career-technical districts in Ohio as well. All of the hard work is paying off: The institution earned the prestigious Achievement of Excellence Award from Ohio's Baldrige Quality program for its work in organizational quality and student performance improvements. We are currently using the National Baldrige Quality Award program as a feedback system to further improve our processes and our performance.

Staying Focused on Student Success

We evaluate our work by the number of students who succeed. We assure student success by using leading measures to monitor the quality of our work. Our approach of always coming back to student success as the only measure of excellence keeps the leading measures a useful feedback system for improving processes. It also assures we don't forget what is most important—our students. T

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STATES DEVELOP QUALITY DATA SYSTEMS

BY JASON KIKER

Quality data is a phrase that has quickly become part of administrators', teachers' and policymakers' vocabulary. With federal and state legislation increasing the amount and types of data that schools, districts and states have to collect, new questions are being asked that include what is the best data to use for improving student performance in secondary and postsecondary education; how to link data so students can be followed from secondary to postsecondary and into the workforce; how are privacy concerns of students and parents met; how can information best be shared; and what impact can data have on high-stakes testing and other skill assessments.

While there is no doubt that data systems can improve the managment of secondary and postsecondary education systems and are necessary for other state reporting requirements, the potential uses of these systems—from linking students' course-taking patterns to remediation enrollment in college, identifying best practices in classroom instruction and tracking students' success in the workplace—far surpass the basic state and federal reporting requirements that inform much of a state's use of P-20 education data.

Quality data and data systems are also important to states when trying to decide which educational programs to fund. Being able to see the effectiveness of a career and technical education (CTE)/academic skills integration program or a class size reduction pro-gram means the state will not continue to spend money on programs that are not helping students, teachers or schools improve.